41,5 kW / 56,4 Hp at 2.000 rpm

5.400 kg

3.785 mm

DX55 | Compact Equipment

DOOSAN DX55 hydraulic excavator: a new model with novel features

The new DX55 hydraulic excavator offers additional value to the operator.

The new DX55 was developed with the concept of “providing optimum value to the end user”.
In concrete terms, this translates into :

- **Increased production** and **improved fuel economy** achieved with the electronic optimization of the hydraulic system and the new generation engine.
- **Improved ergonomics**, increased comfort and excellent all round visibility ensuring a safe and pleasant working environment.
- **Improved reliability**, using high performance materials combined with new methods of structural stress analysis, have lead to increased component life expectancy, thus reducing running costs.
- **Reduced maintenance** increases the availability and lowers the operating costs of the excavator.

Technical specifications

✱ Engine

• Model

Yanmar 4TNV98-Z

• Number of cylinders / Piston displacement

4 / 3.319 cc

• Nominal flywheel power

41,5 kW (56,4 Hp) at 2.000 rpm (SAE J1349, net)

• Max torque

25,3 kgf.m (248,1 Nm) at 1.300 rpm

• Bore & stroke

98 mm x 110 mm

• Alternator

12 V / 60 Ah

✱ Operator's cab

• Noise Levels (dynamic value)

LwA External noise	
Guaranteed Sound Power Level	98 dB (A) (2000/14/EC)
LpA Operator noise	78 dB (A) (ISO 6396)

✱ Hydraulic system

2 Variable displacement axial piston tandem type pumps.
2 Gear pumps and control valve (11-spool) of section block construction.
This original design enables both independent and combined operations of all functions, joystick control type operations.

• Main pumps

2 variable displacement axial piston pumps
Max flow: 2 x 55 l/min
1 gear pump
max flow: 36,6 l/min

• Pilot pump

Gear pump - max flow: 13 l/min

• Maximum system pressure

Boom/Arm/Bucket:	245 kgf/cm² (240 bar)
Travel:	210 kgf/cm² (205 bar)
Swing:	210 kgf/cm² (205 bar)

✱ Swing mechanism

High-torque, axial piston motor with planetary reduction gear bathed in oil. Swing circle is single-row, shear type ball bearing with induction-hardened internal gear. Internal gear and pinion gear immersed in lubricant. A two position swing lock secures the upper structure for transportation.

• Swing speed	**9,8 rpm**
• Front / Rear swing radius	**2.375 mm / 1.650 mm**
• Left / Right Swing angle	**80° / 50°**

✱ Drive

Each track is driven by an independent, high-torque, axial piston motor through planetary reduction gears. Two levers control provide smooth travel or counter-rotation upon demand.

• Travel speed (high/low)	**4/2,4 km/hr**
• Maximum traction force	**4.700/2.500 kgf**
• Maximum grade	**35° / 70 %**

✱ Weight

Boom 3.000 mm • Arm 1.600 mm • Bucket SAE 0,175 m³ • Shoe 400 mm

Operating weight	Ground pressure
5.600 kg	0,32 kgf/cm²

✱ Undercarriage

Tractor type undercarriage. Heavy-duty track frame, all welded stress relieved structure. Top grade materials are used for toughness. Side frames are welded, securely and rigidly, to the track frame. Lifetime lubricated track rollers, idlers with floating seals.
Hydraulic track adjusters with shock-absorbing recoil springs.

Lower rollers (per side)	5
Track shoes	Rubber
Shoe width	400 mm

✱ Refill capacities

Fuel tank	115 l
Cooling system (radiator capacity)	10 l
Engine oil	11,6 l
Final drive (each)	1,2 l
Hydraulic tank	73 l

✱ Buckets

Capacity (m³)		Width (mm)		Weight (Kg)	Recommendation	
PCSA heaped	CECE heaped	Without side cutters	With side cutters		3.000 mm Boom	
					1.600 mm Arm	1.900 mm Arm
0,175 m³	0,15 m³	654 mm	724 mm	141 kg	B	B
0,07 m³	0,06 m³	300 mm	362 mm	96 kg	A	A

A. Suitable for materials with a density less than or equal to 2,000 kg/m³
B. Suitable for materials with a density less than or equal to 1,600 kg/m³

Performance

DX55 ensures best performance with a powerful excavating force and a high-tech hydraulic system for better operating efficiency at any work site! Excellent performance is its basic feature! Overall safety and convenience are also key factors when considering excellent performance.

RPM dial / Auto idle

Auto Fuel feed Pump

Higher greadability and work capability

Comfort

This standard-duty machine, offers a spacious operating area that is only found in medium and heavy-duty machines. The working controls in the cabin are ergonomically designed to ensure convenience and comfort for the operator.

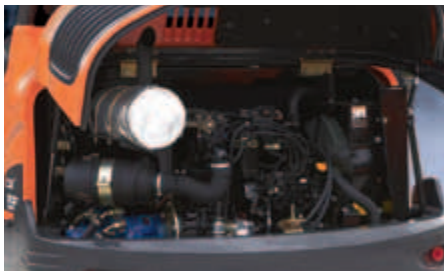
Fixed-Type Instrument Panel

High-Output Air-Conditioner and Defroster

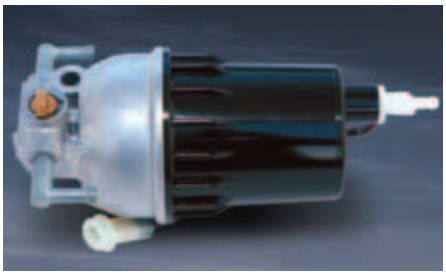
2-stage sliding seat

Maintenance

The most advanced technology developed by Doosan Infracore Co., Ltd. was integrated into the DX55 excavator for powerful performance and simple, easy maintenance. This provides the operator with convenient maintenance check points and maximizes the work efficiency of the DX55.
The reliability of a machine contributes to its overall lifetime operating costs. Doosan uses finite element and 3-dimensional computer simulation.

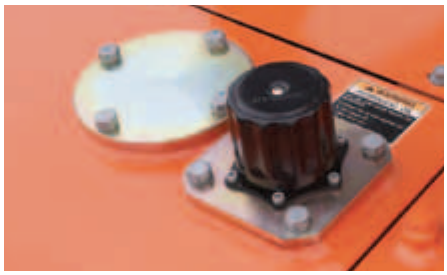


Easy maintenance



Water separator

Engine mounting rubber



Air Breather

Grease Piping

Standard and optional equipment

✱ Standard equipment

• Hydraulic system

- Boom and arm flow regeneration
- Spare ports (valve)

• Cab & interior

- Cab mounted on viscous support
- Air-conditioner
- Aircon filter
- Adjustable suspension seat with adjustable head rest and arm rests
- Sliding front window removable in two parts
- Room light
- Intermittent windshield wiper
- Storage box
- Engine speed (RPM) control dial
- Loudspeakers and connections for radio
- Remote radio control on console
- 12 V power outlet
- PC interface port for Diagnostics
- Hydraulic control levers with 3 switches
- Glass antenna

• Safety

- Large handrail
- Seatbelt
- Hydraulic safety lock lever
- Safety glass windows
- Hammer for emergency escape
- Emergency engine stop (switch)

• Undercarriage

- Hydraulic track tension adjuster
- Shoes (400 mm)
- Track guards
- Dozer blade (1.880 mm)

• Others

- Double element air cleaner
- Fuel pre-filter
- Engine overheat prevention system
- Engine restart prevention system
- Self-diagnostic system
- Alternator 12V, 60A
- Horn
- Halogen working lights
  - Chassis mounted 2
  - Boom mounted 2
- Auto idle
- Fuel tank filling pump

✱ Optional equipment

• Cab & interior

- Seat Heater
- Radio/CD
- Radio/CD/MP3
- Additional working lamp
- Sun visor

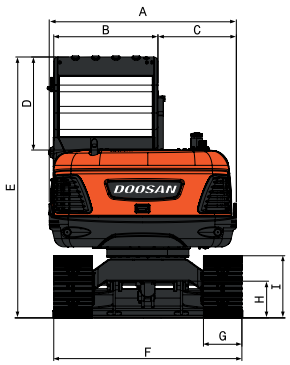
• Safety

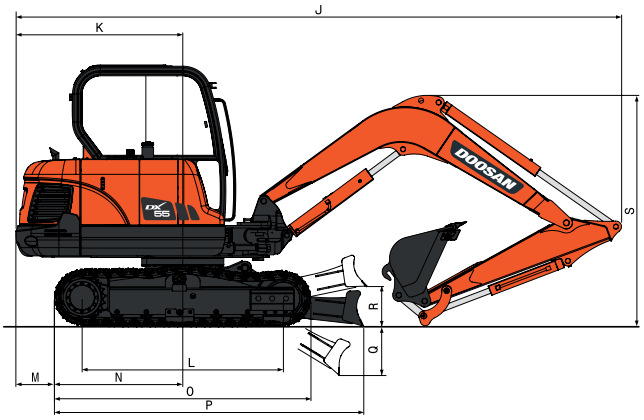
- Boom safety valves
- Overload warning device
- Travel alarm
- Rotating beacon
- Accumulator
- Left review mirror

• Others

- Hydraulic piping for crusher
- Hydraulic piping for tilting and rotating
- Hydraulic piping for quick coupler

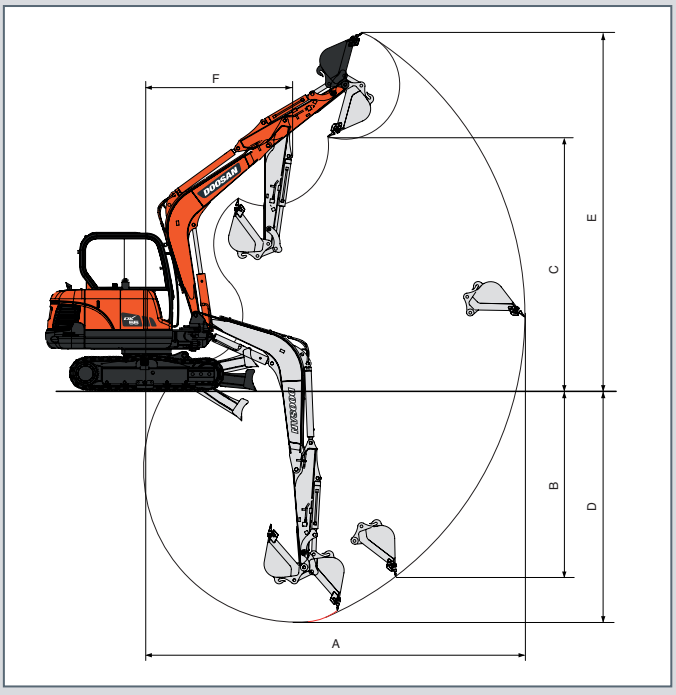
Dimensions and working ranges





✱ Dimensions

Boom	3.000 mm	
Arm	1.600 mm	1.900 mm
A Overall width of upper structure	1.850 mm	—
B Cab. width	1.075 mm	—
E Overall height of cab	2.550 mm	—
F Overall track width	1.880 mm	—
G Track shoe width	400 mm	—
H Ground clearance	365 mm	—
I Track height	590 mm	—
J Overall length	5.900 mm	5.970 mm
K Tail length	1.650 mm	—
L Tumbler distance	1.990 mm	—
M Tail to track clearance	400 mm	—
O Track length	2.500 mm	—
P Track to dozer length	2.975 mm	—
Q Height of dozer down	575 mm	—
R Height of dozer up	350 mm	—
S Boom height	1.985 mm	2.175 mm



✱ Digging force (ISO)

Bucket (PCSA)	**0,175 m³**	**0,07 m³**
Digging force	4.200 kgf	4.200 kgf
	41,2 kN	41,2 kN

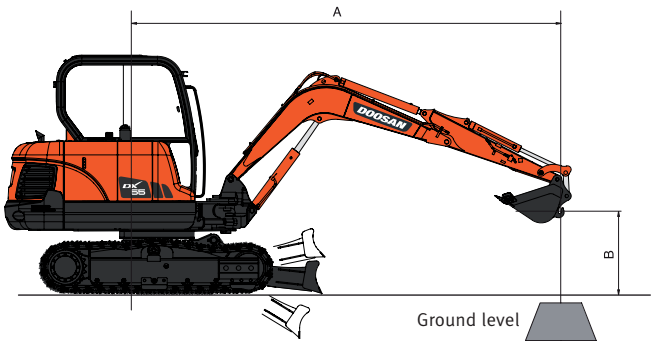
Arm	**1.600 mm**	**1.900 mm**
Digging force	2.800 kgf	2.500 kgf
	27,5 kN	24,6 kN

At power boost (ISO)

✱ Working range

Boom		**3.000 mm**	
Arm		**1.600 mm**	**1.900 mm**
Bucket type (SAE)		**0,175 m³**	**0,07 m³**
A	Max. digging reach	6.160 mm	6.450 mm
B	Max. vertical wall depth	3.110 mm	3.400 mm
C	Max. loading height	4.080 mm	4.280 mm
D	Max. digging depth	3.785 mm	4.085 mm
E	Max. digging height	5.810 mm	6.010 mm
F	Min. swing radius	2.365 mm	2.380 mm

Lifting capacity



STANDARD — Boom: 3.000 mm - Arm: 1.600 mm - Bucket: SAE 0,175 m³ (CECE 0,15 m³) - Shoe: 400 mm **Units: 1.000 kg**

A (m) / B (m)	2				3				4				5				Max Reach					
	Dozer up		Dozer down		Dozer up		Dozer down		Dozer up		Dozer down		Dozer up		Dozer down		Dozer up			Dozer down		
																			A (m)			A (m)
4									*0,97	0,86	*0,97	0,86					*0,86	0,73	4,37	*0,86	0,73	4,37
3									*1,06	0,84	*1,06	0,84					*0,86	0,58	4,96	*0,86	0,58	4,96
2	*3,06	2,39	*3,06	2,39	*1,68	1,26	*1,68	1,26	1,33	0,81	*1,34	0,81	0,93	0,56	*1,23	0,56	0,86	0,51	5,26	*0,92	0,51	5,26
1					2,00	1,17	*2,49	1,17	1,28	0,76	*1,69	0,76	0,91	0,54	*1,38	0,54	0,83	0,49	5,32	*1,03	0,49	5,32
0 (ground)	*1,78	*1,78	*1,78	*1,78	1,94	1,11	*2,95	1,11	1,25	0,73	*1,95	0,73	0,90	0,52	*1,50	0,52	0,86	0,50	5,16	*1,24	0,50	5,16
-1	*2,95	2,11	*2,95	2,11	1,92	1,10	*3,03	1,10	1,24	0,72	*2,04	0,72					0,96	0,56	4,75	*1,61	0,56	4,75
-2	4,05	2,14	*4,51	2,14	1,94	1,11	*2,76	1,11									1,25	0,74	3,99	1,84	0,74	3,99
-3	*3,03	2,23	*3,03	2,23													*2,34	1,59	2,45	*2,34	1,59	2,45

OPTION — Boom: 3.000 mm - Arm: 1.900 mm - Bucket: SAE 0,07 m³ (CECE 0,06 m³) - Shoe: 400 mm **Units: 1.000 kg**

A (m) / B (m)	2				3				4				5				Max Reach					
	Dozer up		Dozer down		Dozer up		Dozer down		Dozer up		Dozer down		Dozer up		Dozer down		Dozer up			Dozer down		
																			A (m)			A (m)
4m																	*0,74	0,64	4,75	*0,74	0,64	4,75
3m									*0,91	0,85	*0,91	0,85	0,95	0,57			*0,73	0,52	5,29	*0,73	0,52	5,29
2m					*1,39	1,28	*1,39	1,28	*1,20	0,81	*1,20	0,81	0,93	0,56	*1,01	0,57	*0,77	0,46	5,56	*0,77	0,46	5,56
1m	*1,43	*1,43	*1,43	*1,43	2,01	1,18	*2,25	1,18	1,28	0,76	*1,56	0,76	0,91	0,53	*1,12	0,56	0,76	0,44	5,62	*0,85	0,44	5,62
0 (ground)	*1,71	*1,71	*1,71	*1,71	1,93	1,11	*2,83	1,11	1,24	0,73	*1,87	0,73	0,89	0,51	*1,30	0,53	0,78	0,45	5,47	*0,99	0,45	5,47
-1m	*2,61	2,08	*2,61	2,08	1,91	1,09	*3,03	1,09	1,22	0,71	*2,02	0,71	0,88	0,51	*1,45	0,51	0,86	0,49	5,09	*1,27	0,49	5,09
-2m	*3,90	2,10	*3,90	2,10	1,91	1,09	*2,87	1,09	1,23	0,71	*1,93	0,71			*1,50	0,51	1,07	0,62	4,40	*1,66	0,62	4,40
-3m	*3,72	2,17	*3,72	2,17	1,96	1,13	*2,16	1,13									1,81	1,05	3,15	*2,00	1,05	3,15

1. The nominal forces are based on the SAE J1097 standard.
2. The load point is the hook at the rear of the bucket.
3. * = The nominal loads are based on hydraulic capacity.
4. The nominal loads do not exceed 87% of the hydraulic capacity or 75% of the capacity of the swing.

: Over front
: Over side or 360°

Specifications and design are subject to change without notice. Pictures of Doosan products may show other than standard equipment.

FSC
Mixed Sources

DOOSAN

Doosan Infracore
Construction Equipment

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